



ABit Consulting
Service Scheduler

INSTALLATION GUIDE

Table of Contents

Requirements	3
Database	3
Client	3
ERA Integration (option)	3
Service	3
SMS Integration (option)	3
MySQL Server	4
Installation	4
MySQL Server 5.0 upwards Installation	4
MySQL Server 5.5 upwards Installation	10
Create privileged user with external access	15
MySQL Server on Linux	16
Create privileged user with external access	16
Service Scheduler – Service	17
Installation	17
Configuration	21
Service Scheduler - Client	25
Installation	25
Configuration	30
Administrator Login	32
License Scanner	33
Installation	33
Backup and Restoration	36
Backup	36
Backup Options	37
Manual Backup	37
Restoration	38
Frequently Asked Questions (FAQ)	39
How large will my database get?	39
Are there any maintenance schedules that need to be run on the Database to keep them running efficiently?	39
Backups currently run nightly, what happens if DB corruption occurs during the day? Do we lose transactions?	39
Known Issues	40
Service Scheduler: Date appears in US format on Window 7 workstation	40
MySQL: Server has gone away during save	40
Scanner: Delay of scanner start-up	40
Scanner: Image Capture Error [clrh]	41
Scanner: Hardware key does not work properly [procr] RXERROR (-92)	42

Requirements

Database

Operating System: Windows 2000/XP/Vista/Seven/Server 2003/Server 2008/Linux.
Network: Access to TCP port 3306

Service Scheduler's database is powered by MySQL 5 which can run on many different platforms. See <http://dev.mysql.com/> for more information on MySQL.

Client

Operating System: Windows 2000 or greater. Windows Server 2003 or greater.
Network: TCP/IP access to MySQL server and Service Scheduler service default port 8090.

Service Scheduler is developed for workstation running Windows 2000 or greater. It has also been designed to run efficiently in a Windows Terminal Server environment.

ERA Integration (option)

For Service Scheduler to extract data from the ERA system. Each workstation requires a TCP/IP connection to the ERA server.

Service

Operating System: Windows 2000/XP/Vista/Server 2003/Terminal Server 2003
Network: TCP/IP access to MySQL server. Service will also listen on a port (default 8090) for RPCXML requests from Clients for settings, updates. This port also acts as a web server for SMS replies if SMS integration with reply to application enabled.

SMS Integration (option)

For Service Scheduler to send SMS messages an internet connection is required by the workstation running the service.

SMS replies can be configured in 2 ways

- 1.) Replies are sent to a common email address or the email address of the Service Advisor.
- 2.) Replies can be posted back into service scheduler as Job Notes

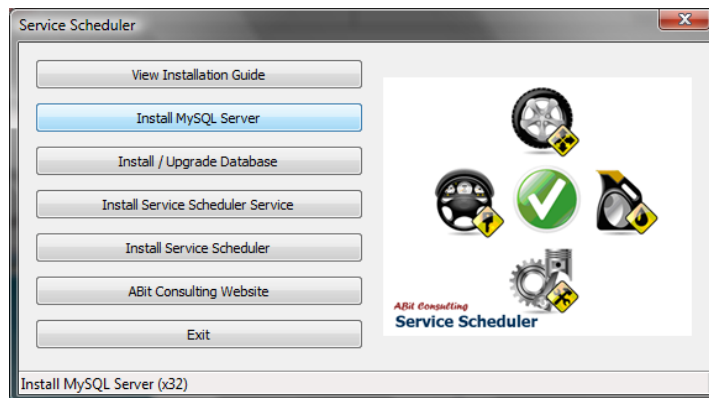
Option 1: Requires 1 email account and/or 1 email account per Service Advisor

Option 2: Requires static public IP address and a port forward to port 8090 (Note: The port number can be modified if required)

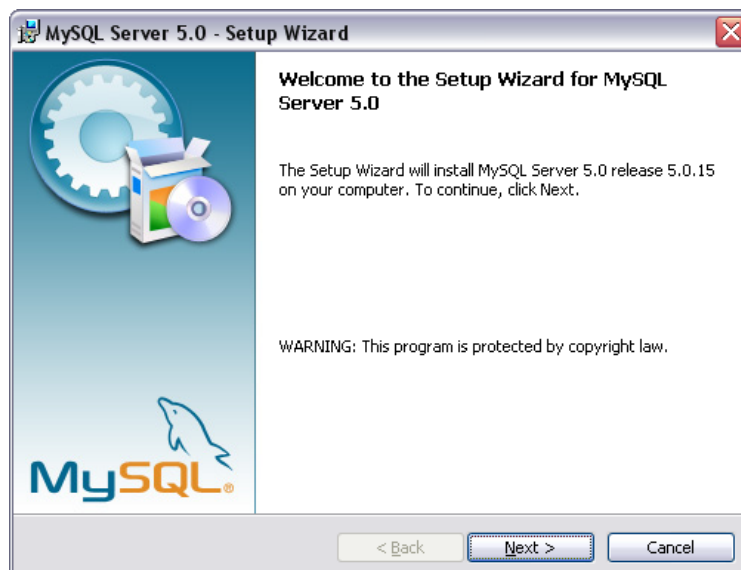
MySQL Server

Installation

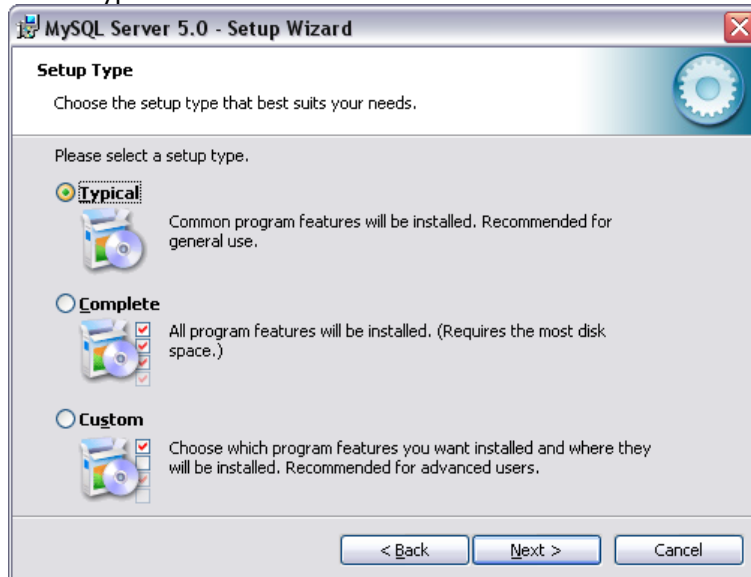
Start the MySQL installation from the “Install MySQL Server” option on the install menu.



MySQL Server 5.0 upwards Installation



Select Typical installation



Click install to start installation



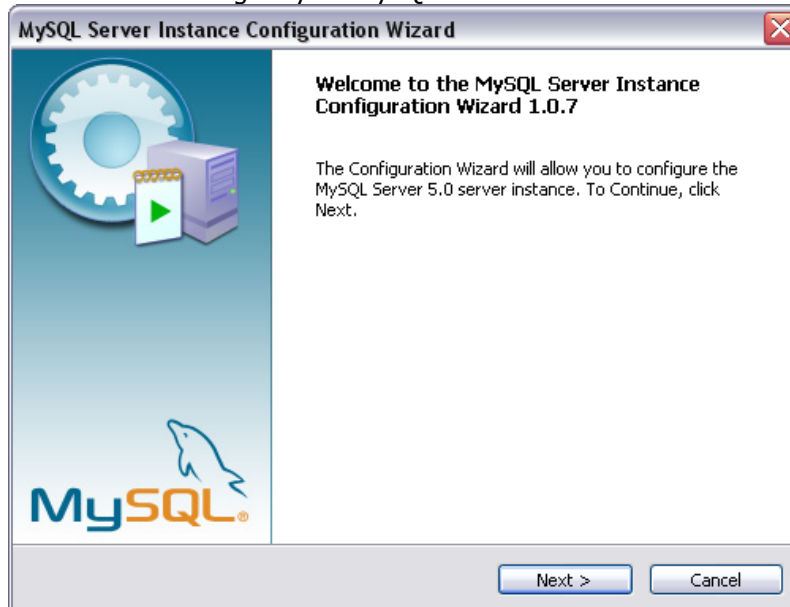
Create MySQL.com account, select Skip Sign-Up



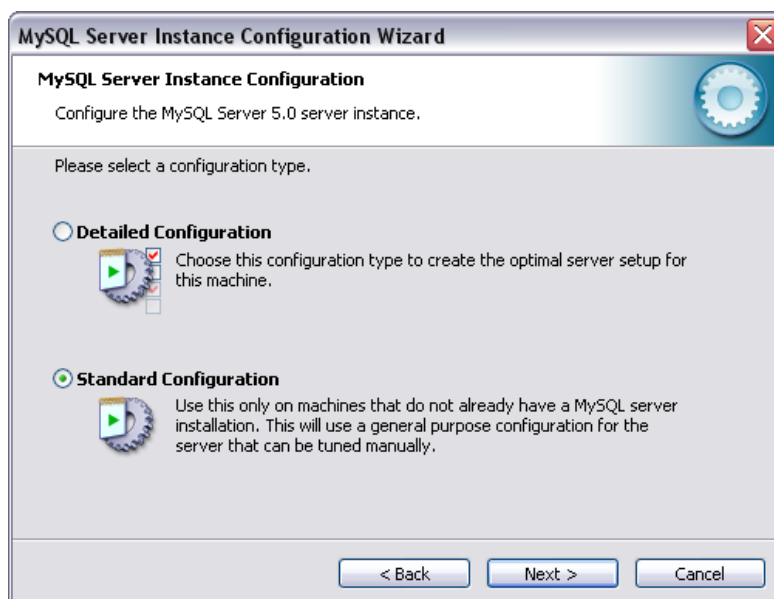
Select Configure the MySQL Server now and select finish.



Select next to configure your MySQL server



Select Standard Configuration



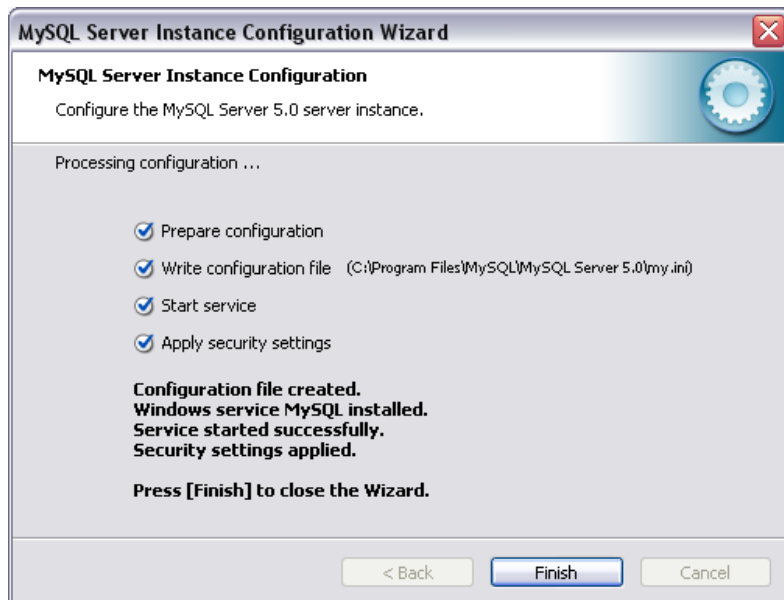
Install as Windows Service



Enter a root password, this password is used to configure MySQL, please keep a record of this password. Ensure you tick the "Enable root access from Remote Server" or Create [a new privileged](#) user after installation.



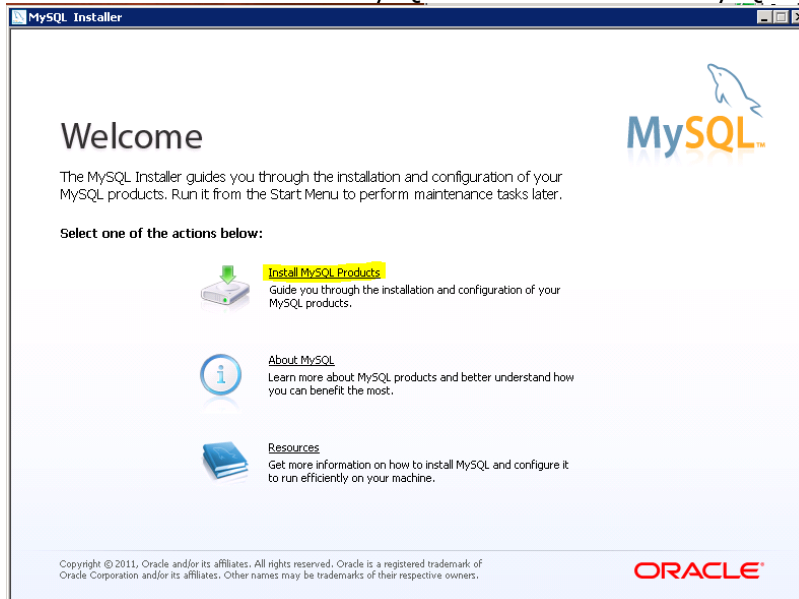
Click execute to configure your MySQL installation



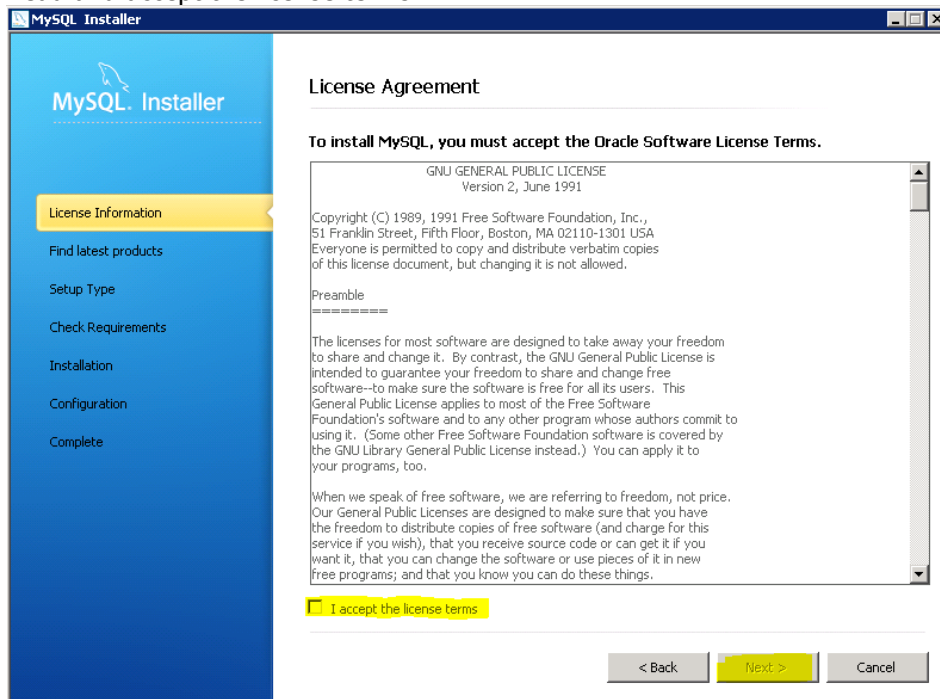
MySQL is now installed and ready to be used on your system.

MySQL Server 5.5 upwards Installation

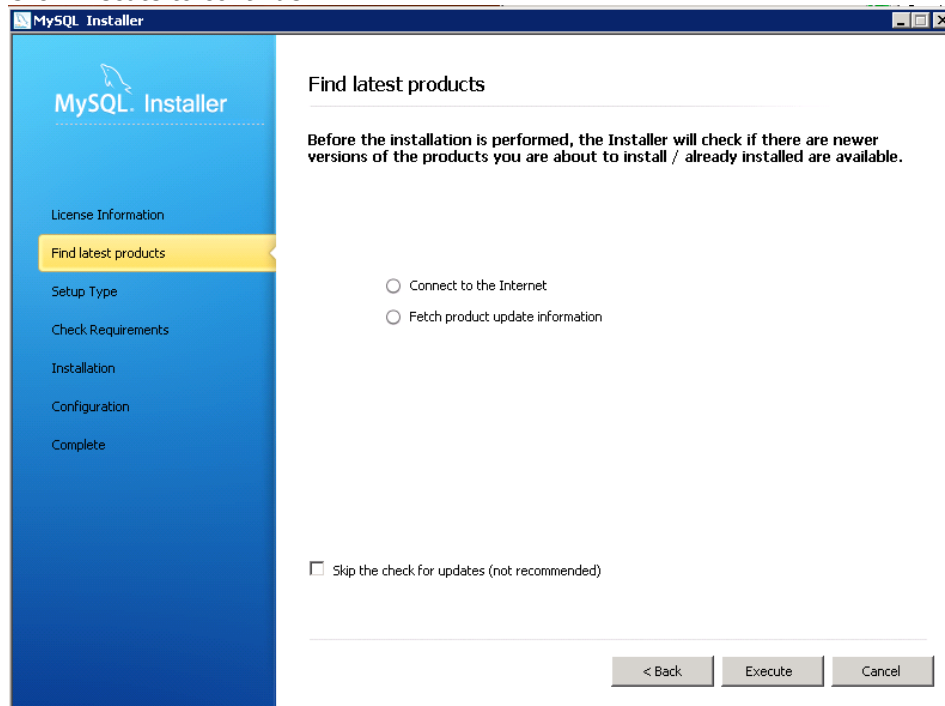
MySQL now provide a new installation script for MySQL Server 5.5 on Windows. This version is currently not bundled with our media kit, but we provide installation insutrctions if you have downloaded it from the MySQL Website. Click Install MySQL Products



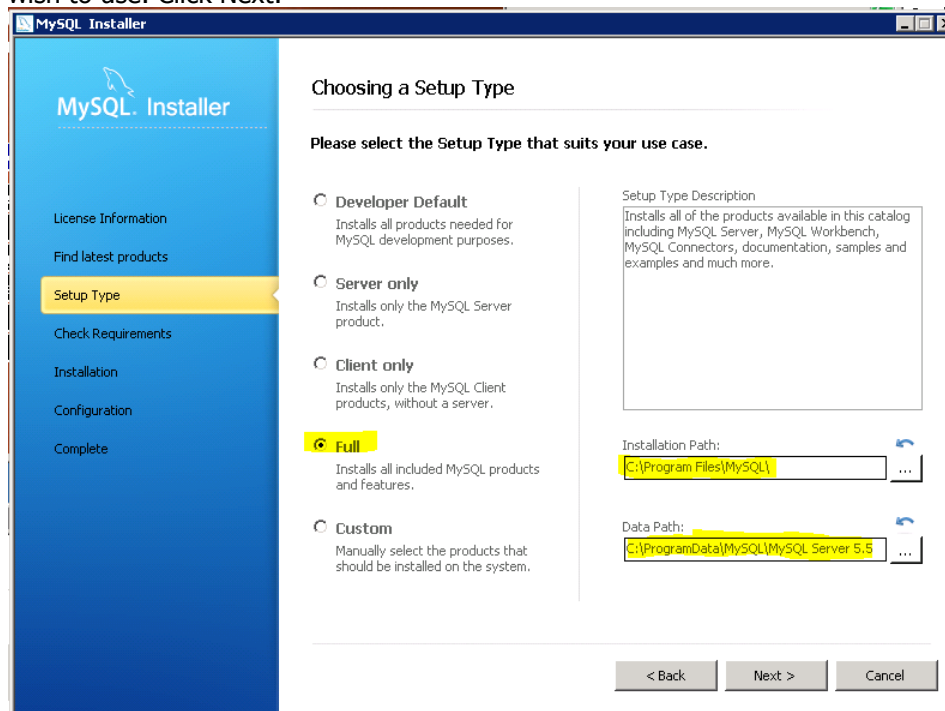
Read and accept the license terms



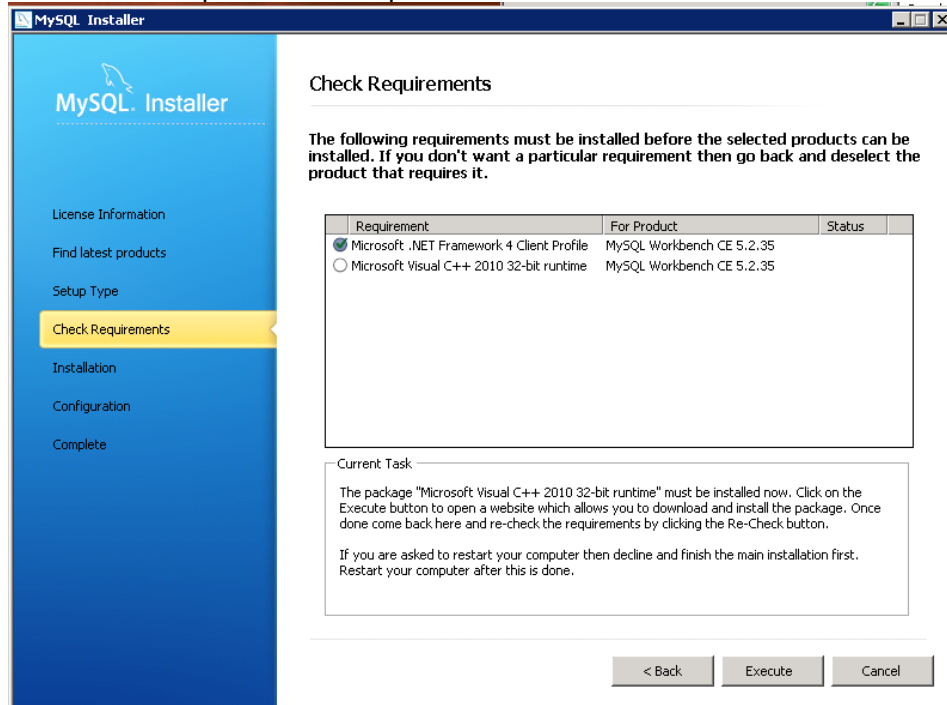
The installation will check you have the latest version, you can choose to skip this option.
Click Execute to continue.



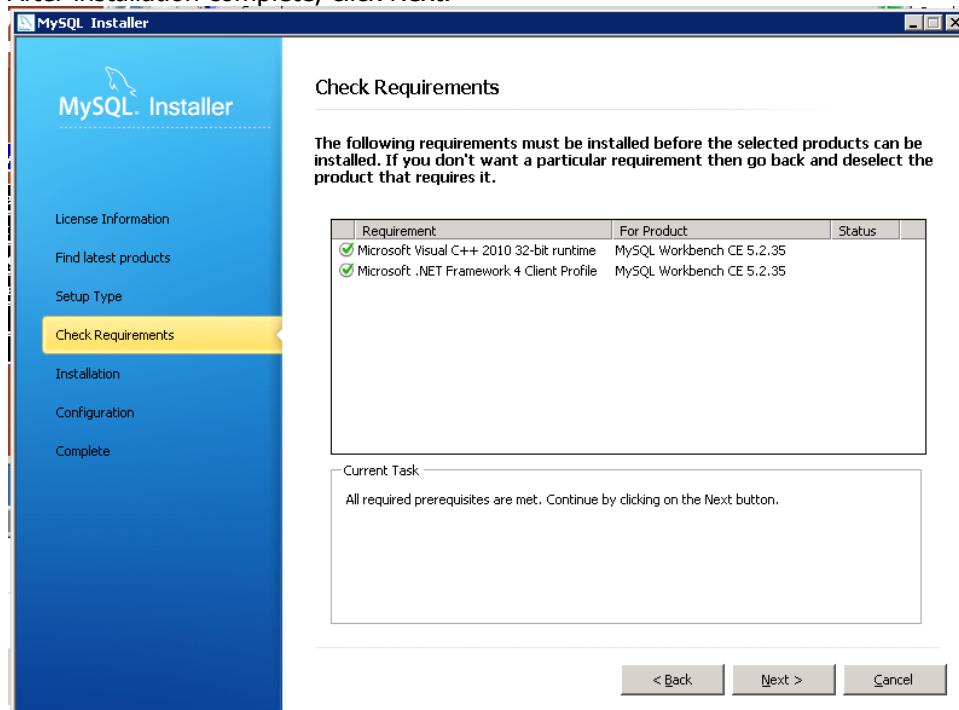
Choose installation type (Full Recommended) and ensure you set the correct Data Path you wish to use. Click Next.



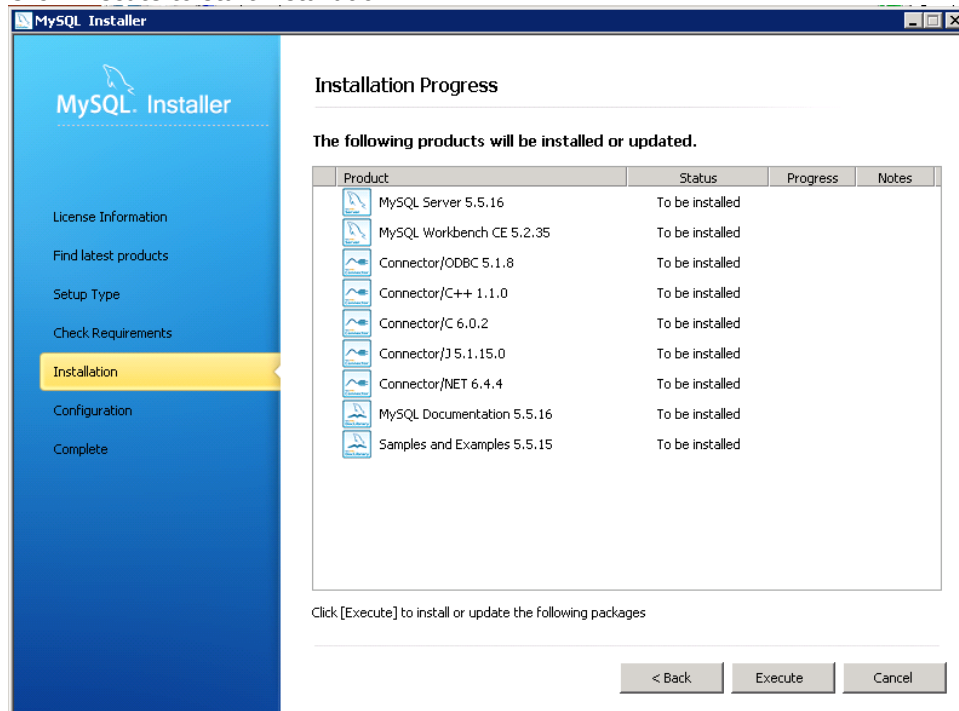
Click Execute to perform and requirement installations.



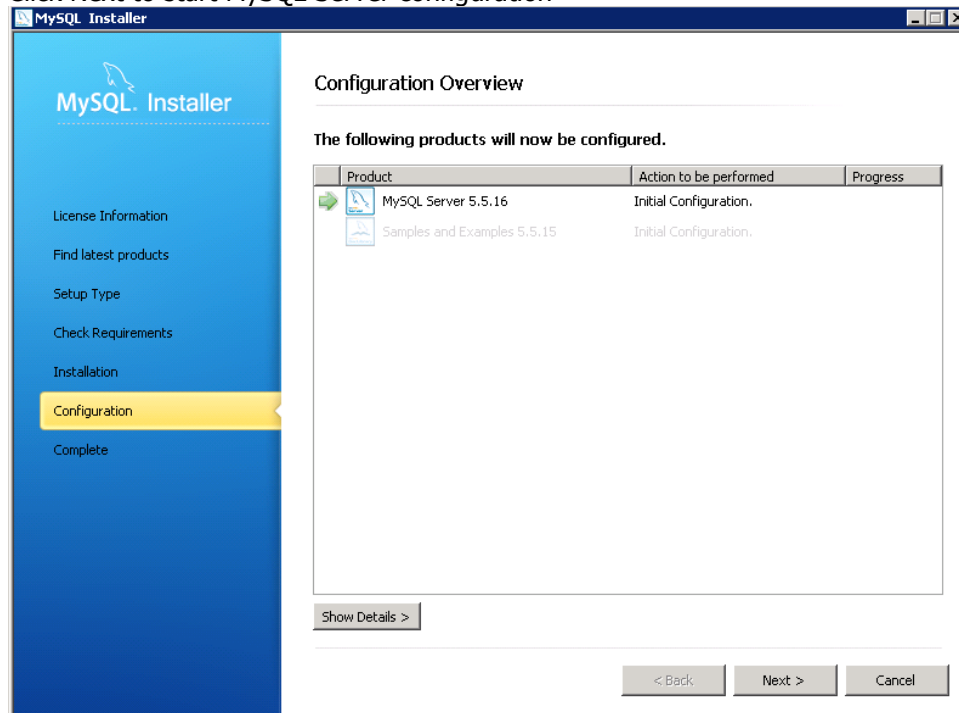
After installation complete, click Next.



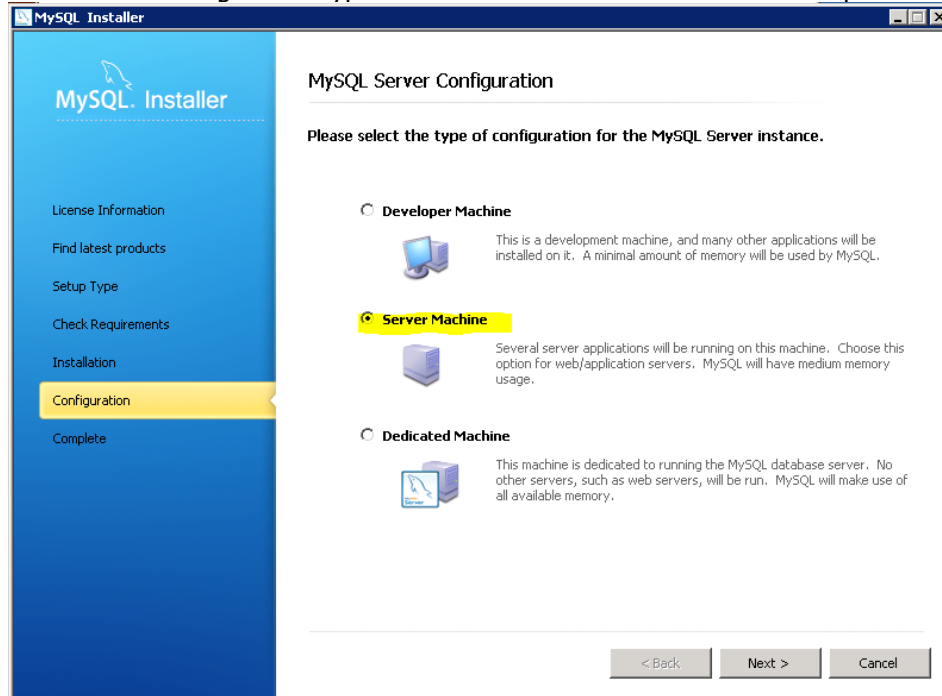
Click Execute to start installation



Click Next to start MySQL Server configuration

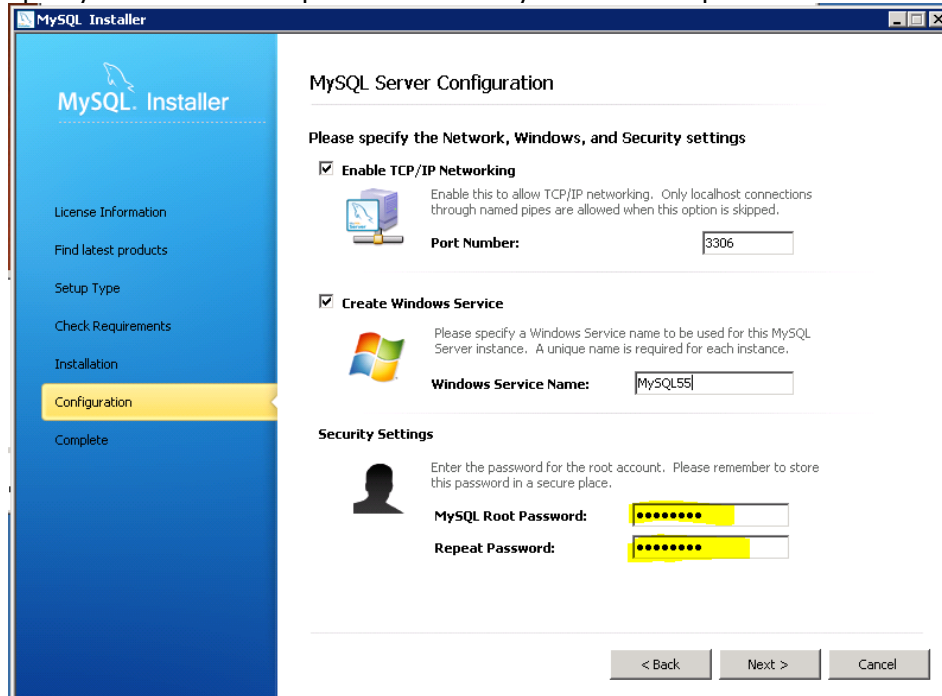


Set machine configuration type. Server machine is the recommended option. Click Next.



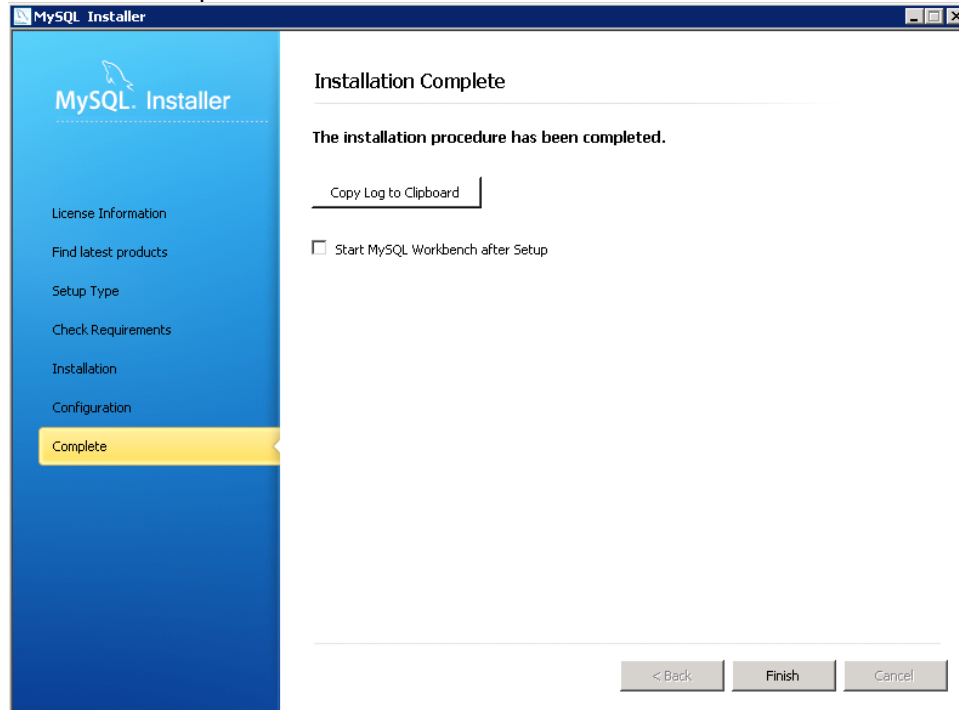
The screenshot shows the 'MySQL Server Configuration' window of the MySQL Installer. On the left is a blue sidebar with a list of steps: License Information, Find latest products, Setup Type, Check Requirements, Installation, Configuration (highlighted in yellow), and Complete. The main area is titled 'MySQL Server Configuration' and contains the instruction: 'Please select the type of configuration for the MySQL Server instance.' There are three radio button options: 'Developer Machine' (with a laptop icon), 'Server Machine' (with a server rack icon and highlighted in yellow), and 'Dedicated Machine' (with a server rack icon). Each option has a brief description. At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

Specify the root account password. Ensure you record this password. Click Next.



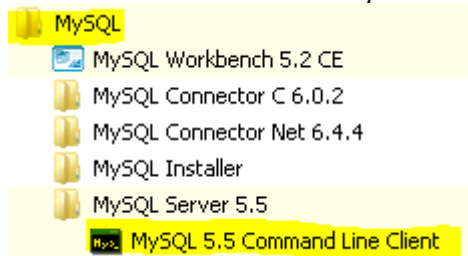
The screenshot shows the 'MySQL Server Configuration' window with the 'Network, Windows, and Security settings' section. The left sidebar is identical to the previous screen. The main area has the instruction: 'Please specify the Network, Windows, and Security settings'. There are two checked checkboxes: 'Enable TCP/IP Networking' (with a network icon) and 'Create Windows Service' (with a Windows logo icon). Below 'Enable TCP/IP Networking' is a 'Port Number' field with the value '3306'. Below 'Create Windows Service' is a 'Windows Service Name' field with the value 'MySQL55'. Under the 'Security Settings' section, there is a user icon and the instruction: 'Enter the password for the root account. Please remember to store this password in a secure place.' Below this are two password fields: 'MySQL Root Password:' and 'Repeat Password:', both with masked characters (dots). At the bottom right are three buttons: '< Back', 'Next >', and 'Cancel'.

Installation Complete. Click Finish.



Create privileged user with external access

By default the installation does not allow the root user to connect from any host apart from localhost. However for remote administration it is recommended to create a new privileged user that can connect from any host.



Enter the password you specified during the installation

```

MySQL 5.5 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 7
Server version: 5.5.16 MySQL Community Server (GPL)

Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _

```

Run the following SQL commands

```

CREATE USER 'username'@'%' IDENTIFIED BY 'password';
GRANT ALL PRIVILEGES ON *.* TO 'username'@'%' WITH GRANT OPTION;
FLUSH PRIVILEGES;

```

Replace username and password with your details (eg username = abit)

MySQL Server on Linux

Install MySQL via your Linux distributions recommended methods (eg apt-get)

Ensure that the server is configured to listen no just on local host in in my.cnf bind-address setting.

```

# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address            = 0.0.0.0

```

Create privileged user with external access

mysql -u root -p

Run the following SQL commands

```

CREATE USER 'username'@'%' IDENTIFIED BY 'password';
GRANT ALL PRIVILEGES ON *.* TO 'username'@'%' WITH GRANT OPTION;
FLUSH PRIVILEGES;

```

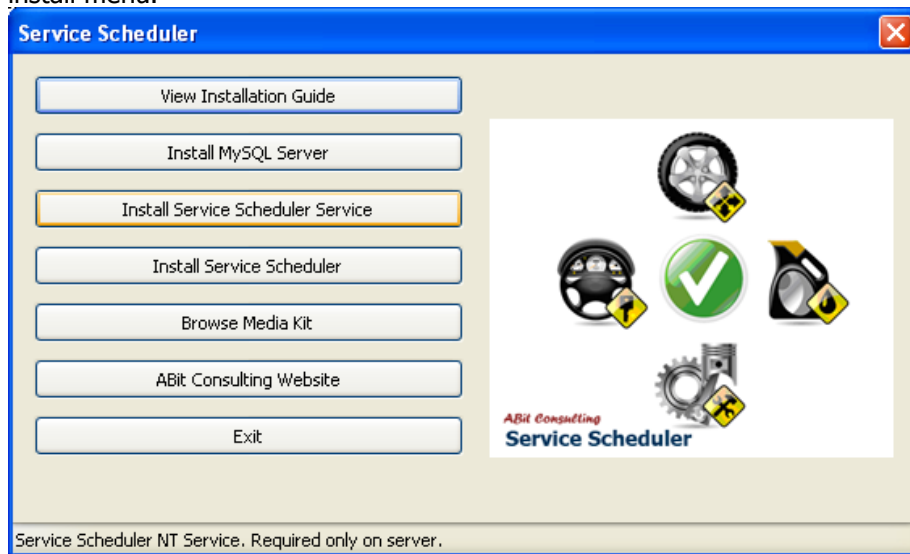
Replace username and password with your details (eg username = abit)

Service Scheduler – Service

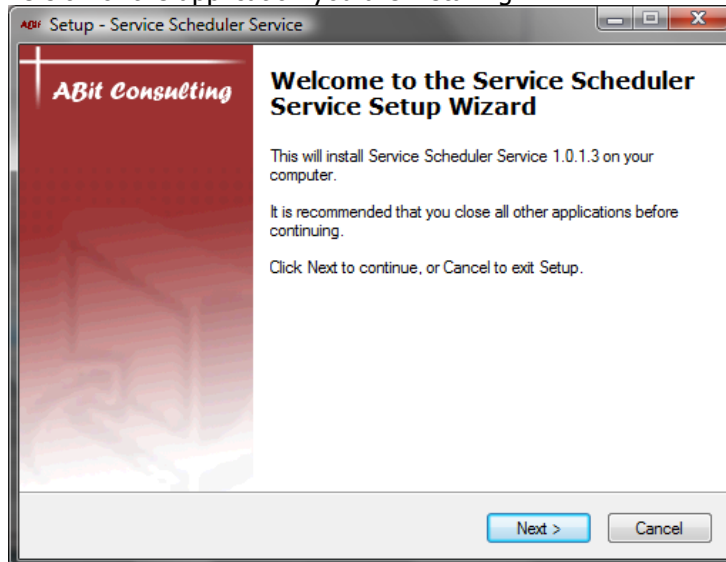
Installation

Only 1 copy of the service is to be installed. The Service Scheduler service should generally be installed on the same server running MySQL.

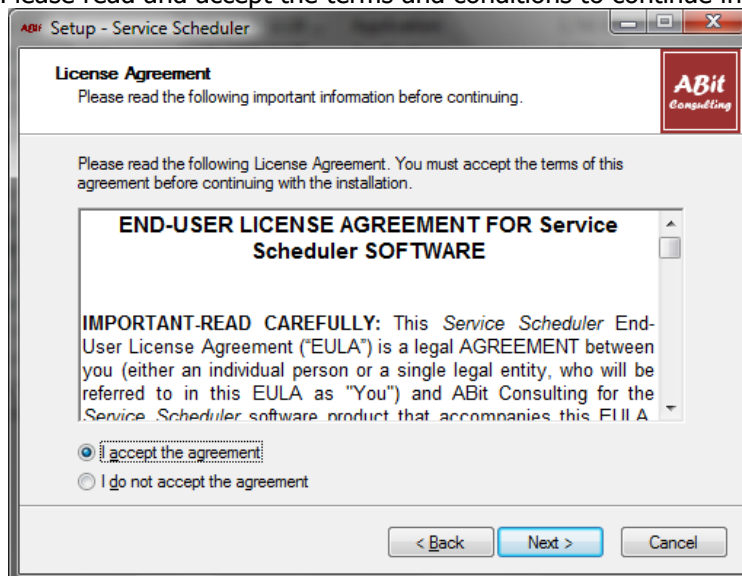
Start the Service Scheduler installation from the “Install Service Scheduler” option on the install menu.



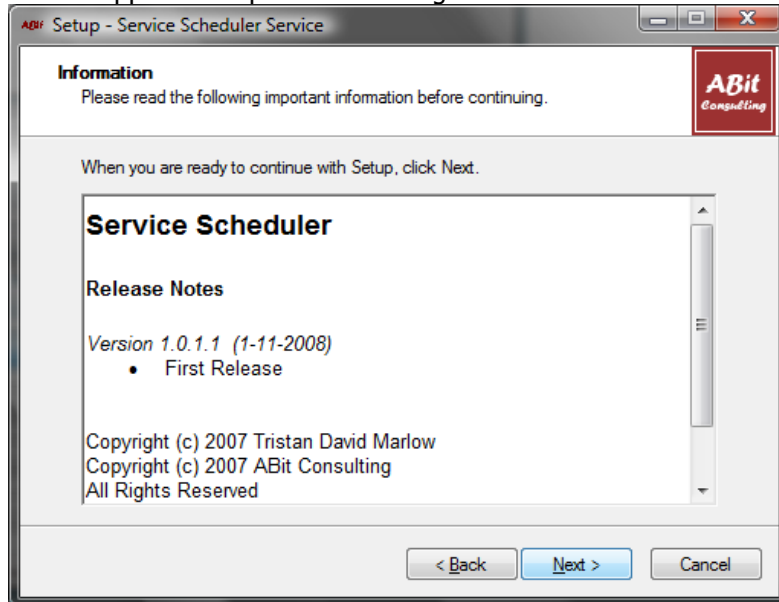
Installation will now, begin the first page of the installation wizard will let you know the version of the application you are installing.



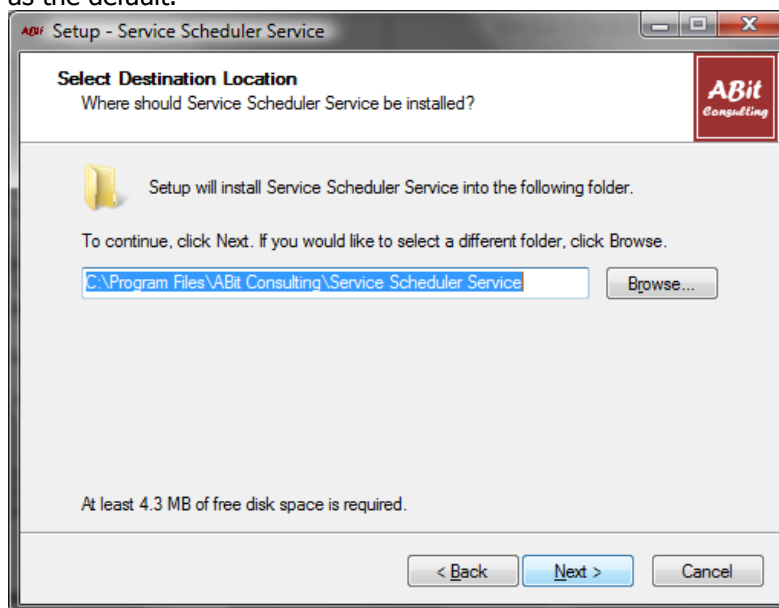
Please read and accept the terms and conditions to continue installation.



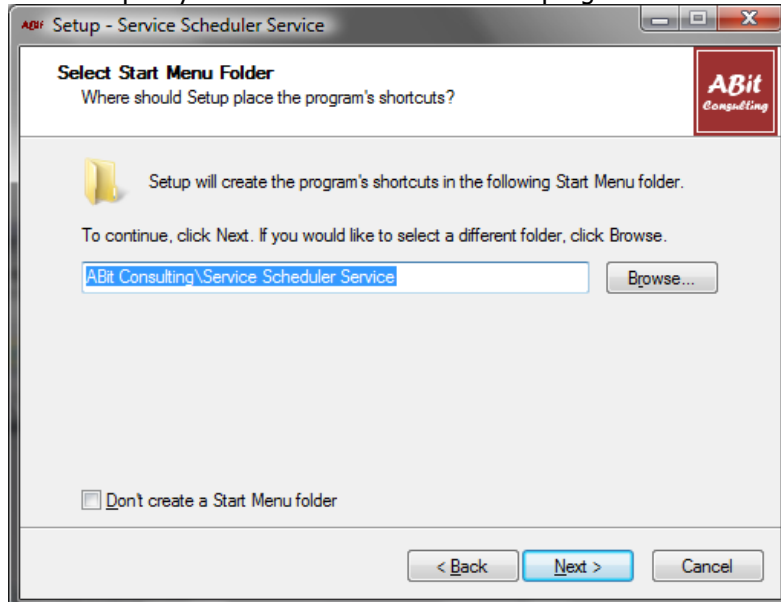
Review application update and changes and click Next.



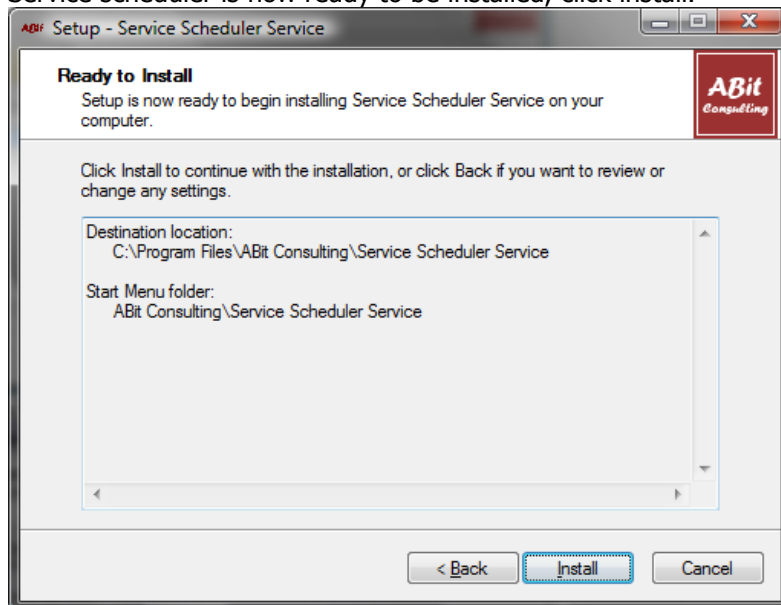
You can specify a different installation folder, but it is recommended you leave installation folder as the default.



You can specify a different location to create program shortcut's



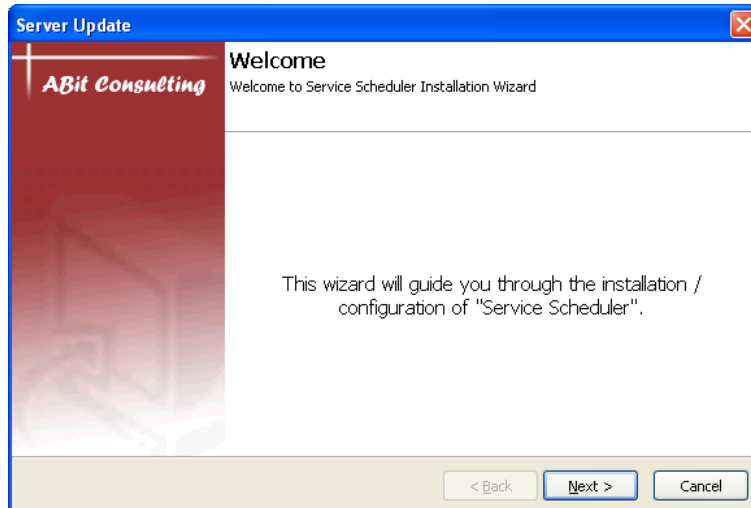
Service scheduler is now ready to be installed, click install.



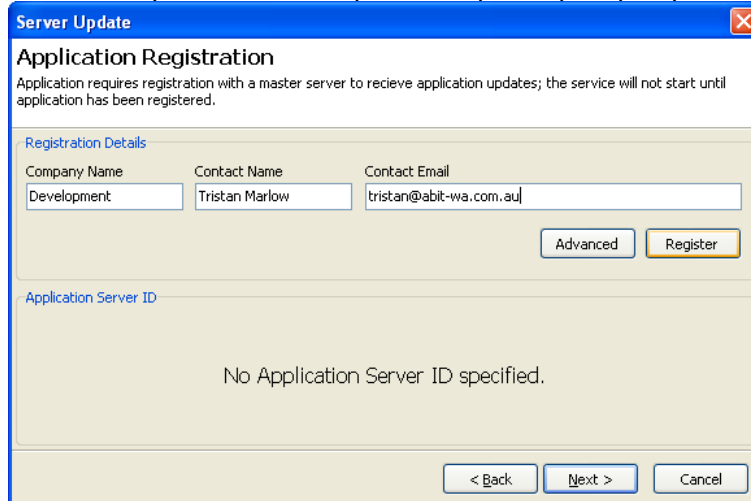
Installation complete.

Configuration

A Server Update wizard will launch after the installation of Service Scheduler Service. This wizard will guide you through the registration with the ABit Consulting Application Manager server, database installation and configuration, automatic update configuration and NT service settings.



Enter registration information and click "Register" button. These details are to receive notification when a new version of Service Scheduler is available. The Service will automatically download the updates. If you require proxy settings, click the Advanced button.



Enter your MySQL server details. The wizard will require an administrator level username and password for database creation (ie root) and a username and password the client's will connect with. By default this is servsched for both username and password.

Server Update

Database Settings
Provide database settings for database installation.

Database Settings

Hostname: mysqlserver Port: 0 Database: servsched Protocol: mysql-5

Database Install / Upgrade Login
Username: root Password: *****
Administration level password used for database administration. Client software will not use this login.

Client / Service Database Login
Username: servsched Password: *****
Client / Service login details. This username and password is used by client application to connect.

< Back Next > Cancel

Select Install new database and click next

Server Update

Database Install / Upgrade
Database Install / Upgrade options

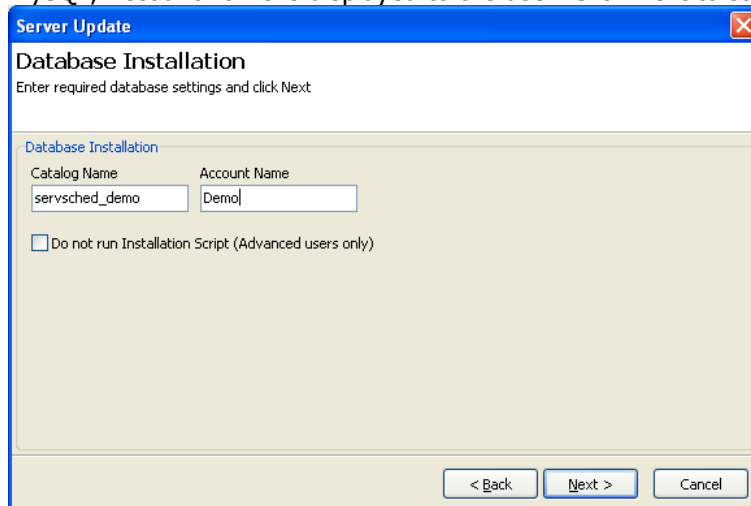
Database Install / Upgrade Wizard

☐ No database changes
☒ **Install new database**
☐ Upgrade database

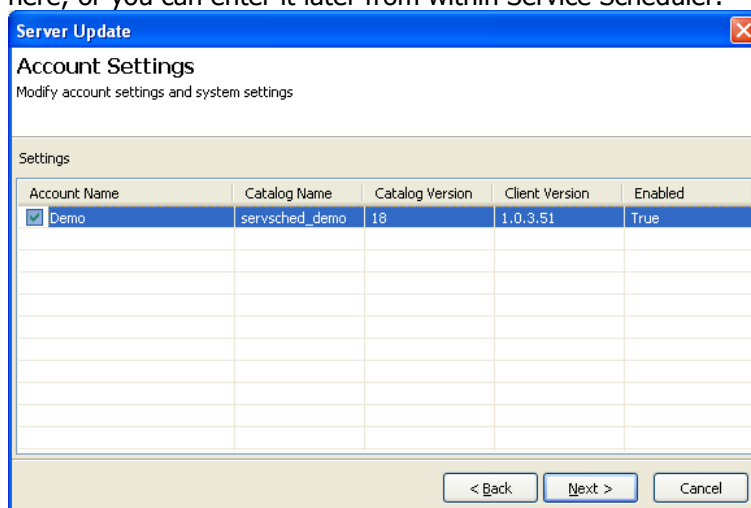
Account Name	Catalog Name	Catalog Version	Client Version	Enabled

< Back Next > Cancel

Enter details for new account. Catalog name is an internal name used by Service Scheduler / MySQL, Account name is displayed to the user. Click Next to start database configuration.



Account settings can be made, if you have received your registration key you can enter it here; or you can enter it later from within Service Scheduler.



Account Name	Catalog Name	Catalog Version	Client Version	Enabled
<input checked="" type="checkbox"/> Demo	servsched_demo	18	1.0.3.51	True

Specify automatic update settings. Enable / Disable automatic updates and provide a Run As username and password used by the client to install updates. This user would have Administrative privileges on all workstations. I.e Domain Administrator.

Server Update

Client Settings
Settings provided to client for communication and automatic updates.

Autoupdate Settings

☒ Enabled

Version: 1.0.3.51

Command: ClientSetup.exe

Parameters: /SILENT /SP- /NOCANCEL

Files (Relative to server HTTP server ie http://server:9080/):
downloads/ClientSetup.exe

Run As

Domain\Username: Password:

NOTE: Client install will be run with above credentials. Blank entry will run as current user.

< Back Next > Cancel

Service settings. Specify the port Service Scheduler Service listen's on.

Server Update

Service Settings
Configure Application Manager Service

Service Settings

XMLRPC / Web Port: 8090 Advanced

Service Control

Start Stop

Service is :UNKNOWN

< Back Next > Cancel

Wizard complete. Clients can now be installed and logged in.

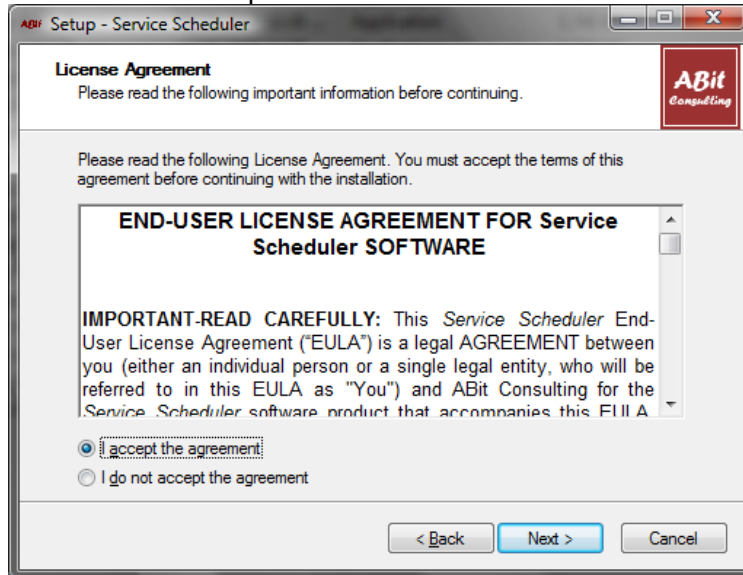
Service Scheduler - Client

Installation

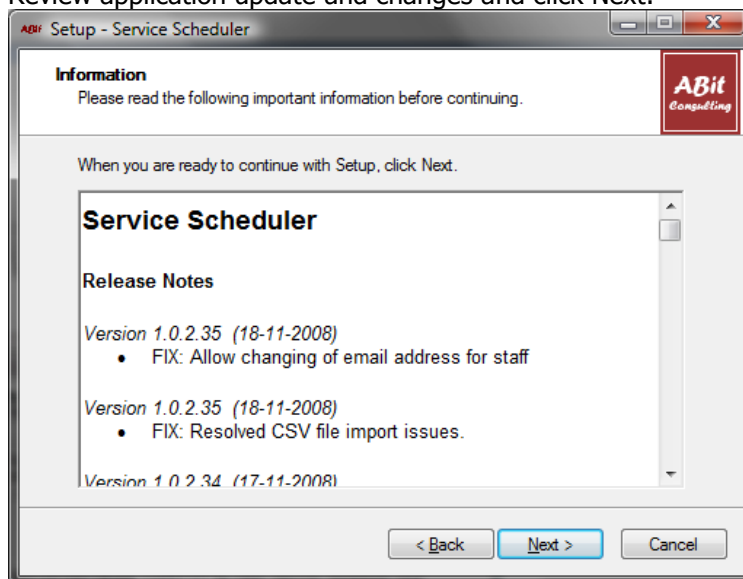
The Service Scheduler Service provides a client installation link. This is available by browsing to your server on the specified port (default: 8090) <http://{ipaddress}:8090/> and click on the Client Installation link.



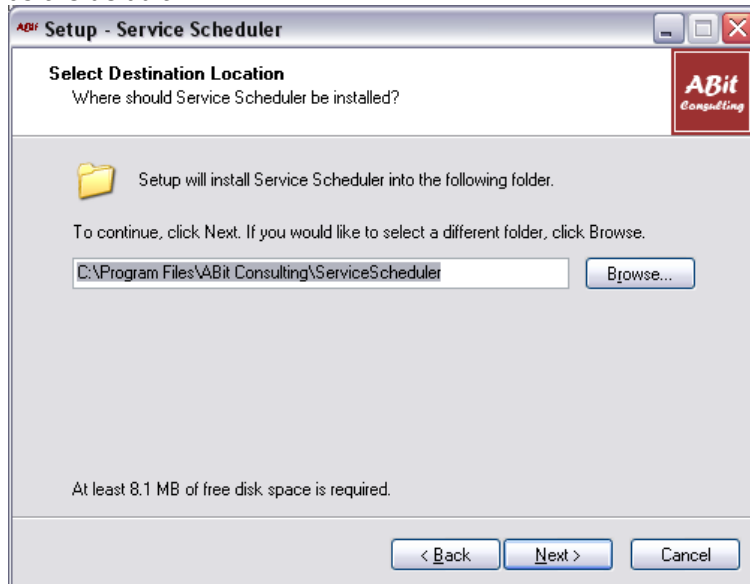
Please read and accept the terms and conditions to continue installation.



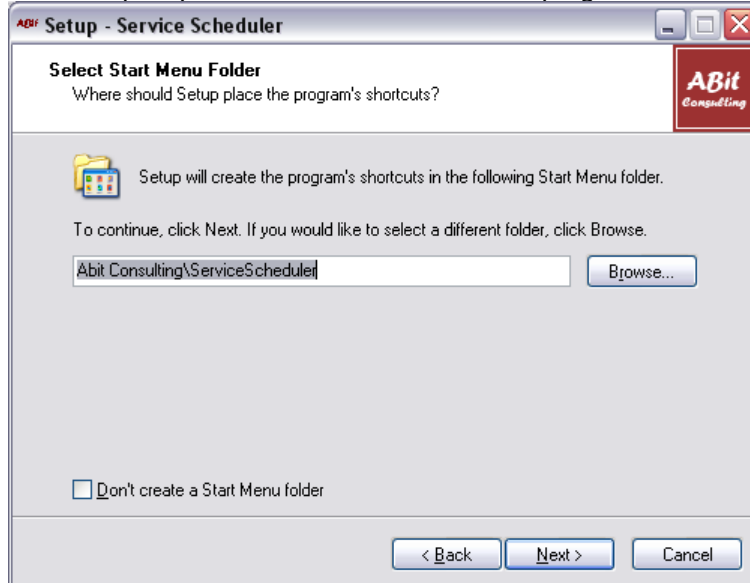
Review application update and changes and click Next.



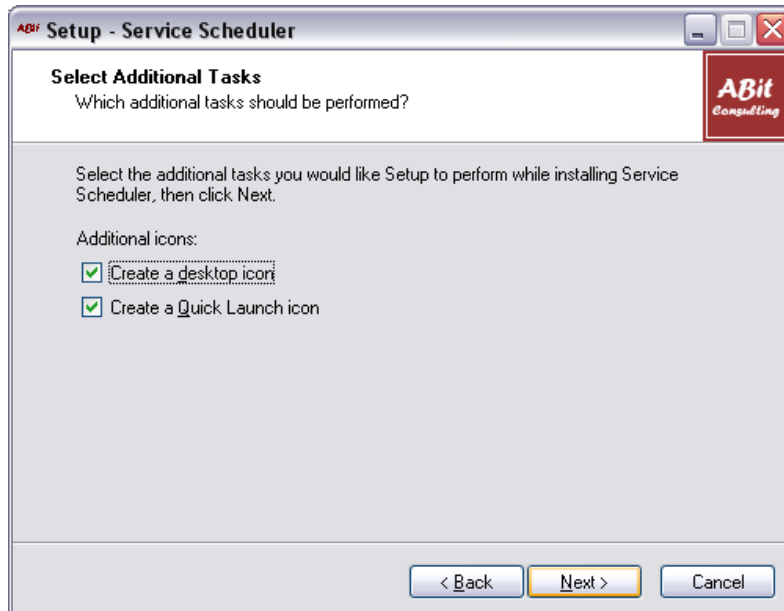
You can specify a different installation folder, but it is recommended you leave installation folder as the default.



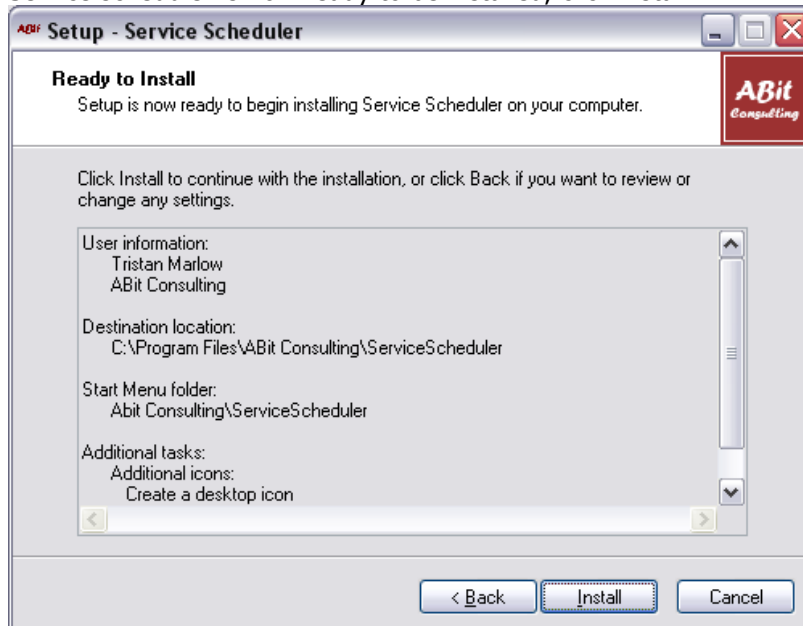
You can specify a different location to create program shortcut's



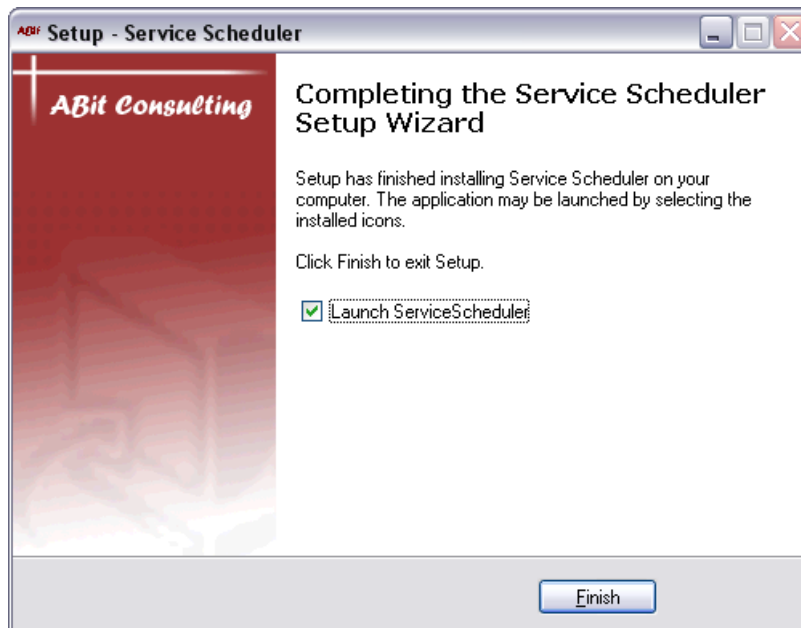
Create desktop icon and quick launch icon.



Service scheduler is now ready to be installed, click install.



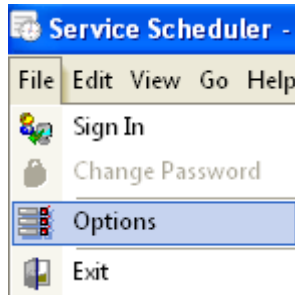
Installation complete.



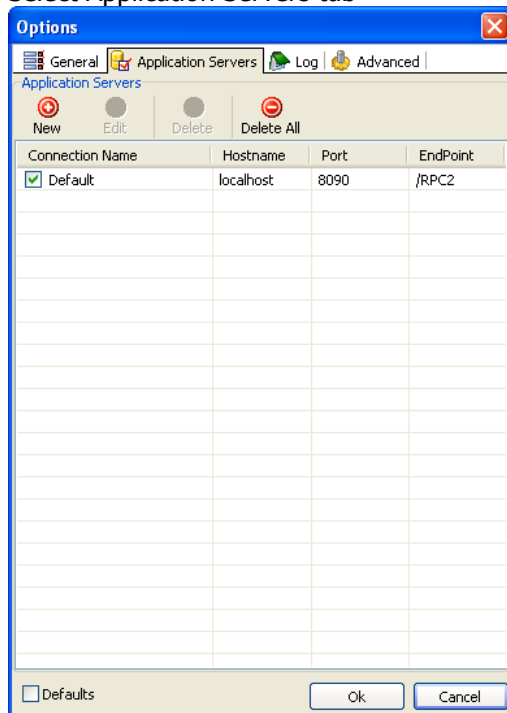
Configuration

Service Scheduler requires communication with the Service Scheduler Service to provide database, update and error reporting communication.

File -> Options



Select Application Servers tab



Either create a new connection or edit the default connection (recommended) and enter the IP address of your server. If the port is different also change the port. Click Save to save Application Server Settings.




Application Server Settings

Connection Name Enabled ☒

Default

Hostname Port End Point

localhost 8090 /RPC2

 Test  Save  Cancel

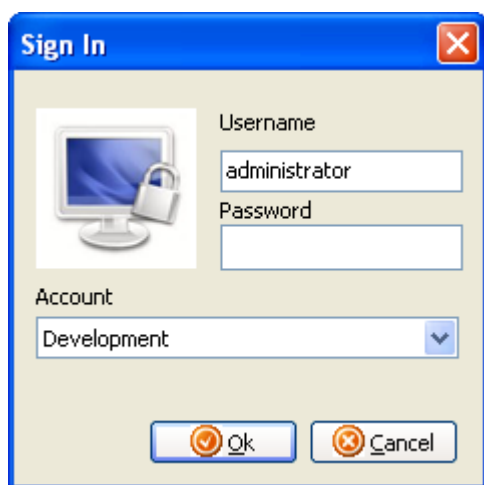
NOTE: Multiple Application Service configurations are available for users who may roam around multiple sites. Generally only one connection is required.

Administrator Login

Administrator users in Service Scheduler have the ability to create other users and create job blocks. You can create as many administrator users as you like, the default administrator account details are:

Username: administrator

Password: servsched



License Scanner

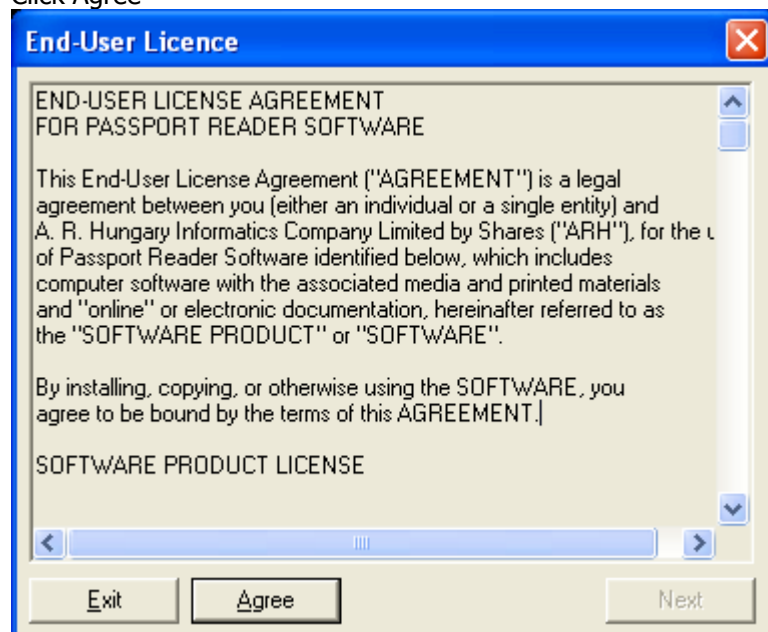
Installation

The installation of the License Scanner will require Administrator access. The scanner should also be used once as an administrative user as it needs to write information on first access to the Windows file system.

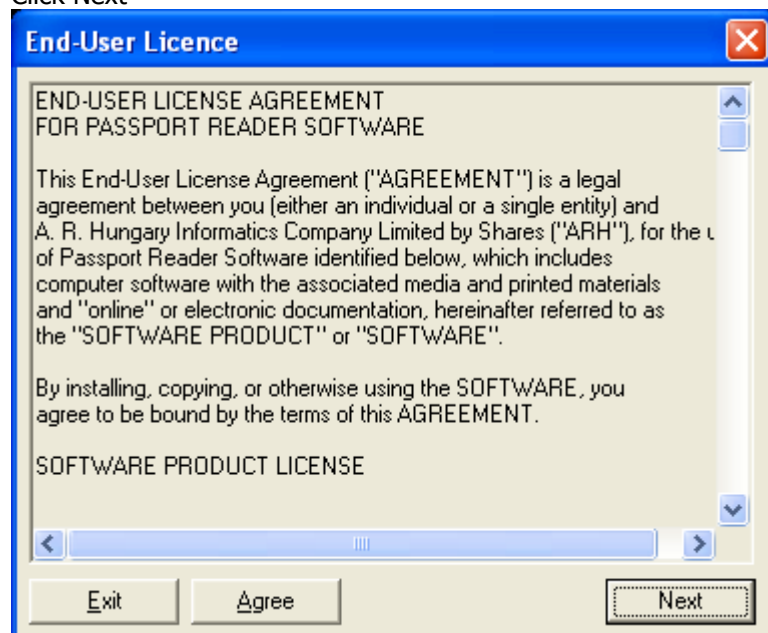
Select Install 32bit Version



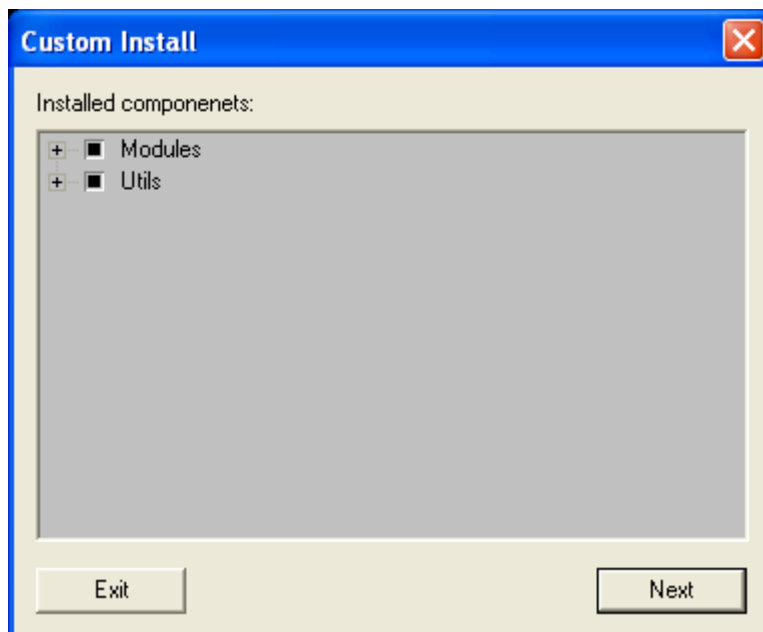
Click Agree



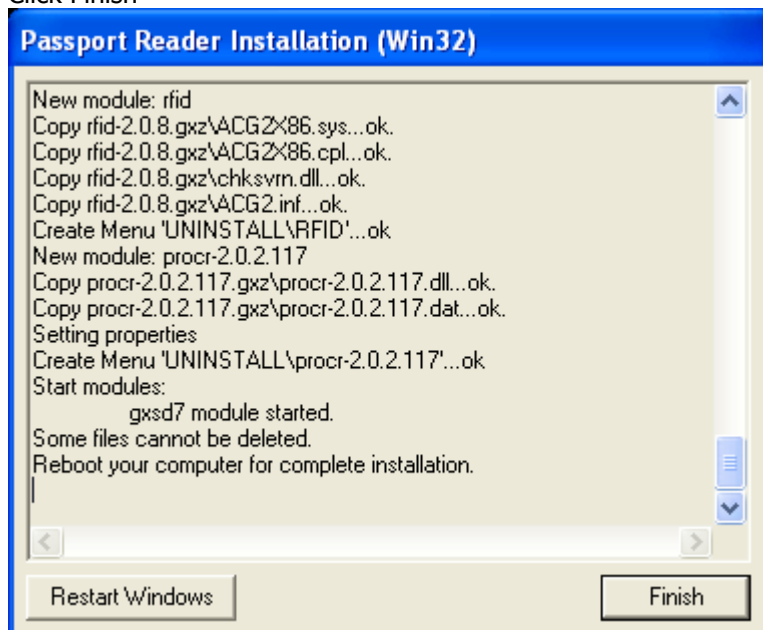
Click Next



Click Next



Click Finish



Start GX Full Page Reader Demo from the Start Menu -> GX -> Full Page Reader demo and scan a license.

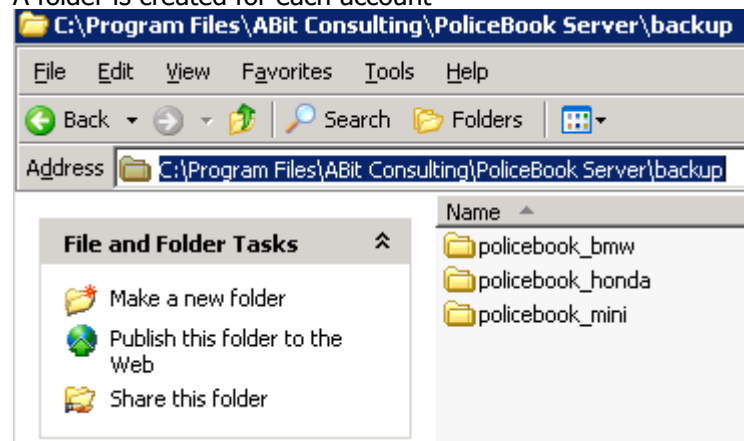
Backup and Restoration

Backup

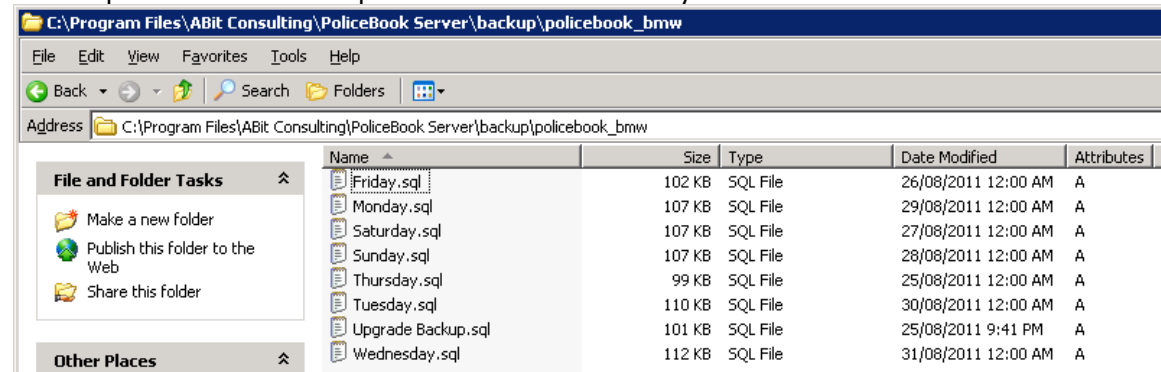
By default PoliceBook is configured to dump it's data every night into the program files directory.

Eg C:\Program Files\ABit Consulting\PoliceBook Server\backup

A folder is created for each account



A backup file is stored in a separate file for each weekday.



A separate file is also created before any account upgrades.

Eg Upgrade Backup.sql

Backup Options

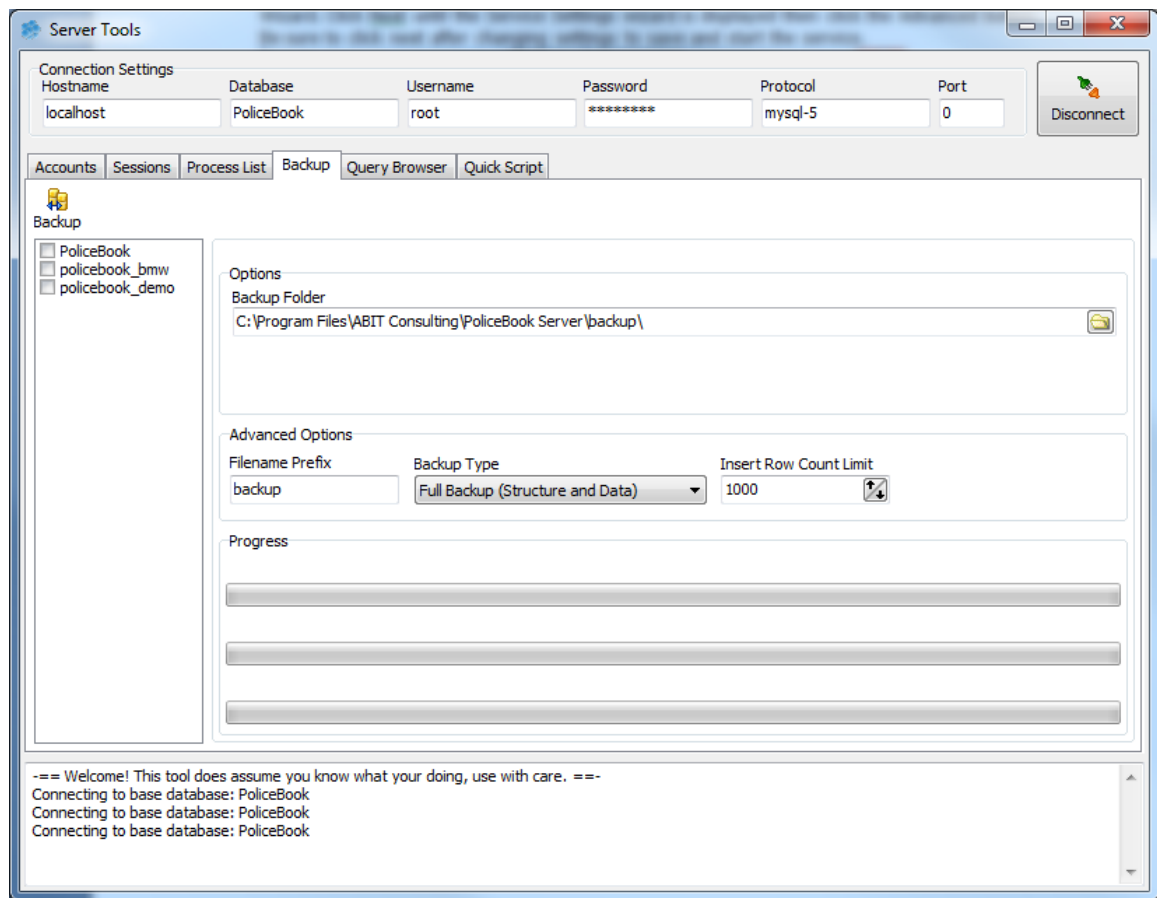
The destination folder for the backups can be modified by running the Server Install and Upgrade Wizard. Click Next until the Service Settings wizard is displayed then click the Advanced button. Be sure to click next after changing settings to save and start the service.

The allowed times for backups can be modified and backups can also be disabled.

The allow start time and end time properties provide a time window the backup can start, this does not determine when the backup will stop.

Manual Backup

In the case a manual backup is required; the Server Tools utility can be used from the start menu for PoliceBook Server.



Select the accounts you would like to backup, backup options and click the backup icon.

Restoration

We request you contact ABit Consulting before performing a restoration as we can provide assistance and / or alternative solution to your issue.

Frequently Asked Questions (FAQ)

How large will my database get?

The database will continue to grow. We have calculated an average of approx 15000 records in 7 years. An example database with 20,000+ records and 1,000,000+ audit records had a database size on disk is 179MB. The database backup files are plain text SQL and are 120 MB x 7 days. So 7 years may require 1 GB per site.

Are there any maintenance schedules that need to be run on the Database to keep them running efficiently?

No. Although it is possible to check database sizes and run a check over tables using HeidiSQL. <http://www.heidisql.com/> HeidiSQL also provide quick access to MySQL status information

The screenshot shows the HeidiSQL 'Table tools' window with the 'Maintenance' tab selected. The 'Operation' dropdown is set to 'Check'. The 'Options' section includes checkboxes for 'Quick', 'Extended', 'Fast', 'Changed', 'Medium', and 'Use FRM file'. A table of results shows multiple 'check' operations on 'policebook_bmw.tbl...' with 'status' messages all returning 'OK'. Below this, the 'Selected objects size: 178.7 MB. 3.8% done.' is displayed. At the bottom, the 'Status' tab is active, showing a table of MySQL status variables.

Variable	Value	Avg per hour
Aborted_clients	16	0.1
Aborted_connects	115	0.4
Binlog_cache_disk_use	0	0.0
Binlog_cache_use	0	0.0
Binlog_stmt_cache_dis...	0	0.0
Binlog_stmt_cache_use	0	0.0
Bytes_received	111.9 MB	433.2 KB
Bytes_sent	5.6 GB	21.5 MB

We do recommend you perform a monthly check on your server (ie disk space, CPU usage, windows updates etc)

Backups currently run nightly, what happens if DB corruption occurs during the day? Do we lose transactions?

MySQL InnoDB tables are very good at recovering themselves, and upon a restart will process any recovery logs. If database corruption occurs we would recommend restoring a previous backup.

Known Issues

Service Scheduler: Date appears in US format on Window 7 workstation

This is a known issue for Windows 7. More information can be found [here](#)

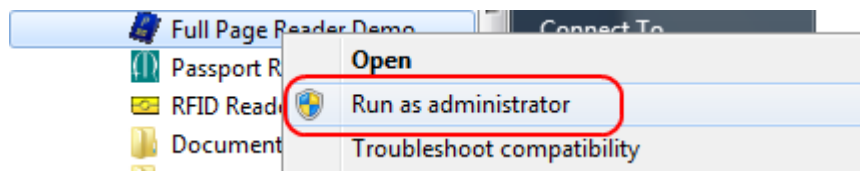
MySQL: Server has gone away during save

Usually this requires an increased max_allowed_packet setting to allow larger data packets.
<http://dev.mysql.com/doc/refman/5.0/en/gone-away.html>

Scanner: Delay of scanner start-up

If the installation of the scanner is performed on a workstation without administrator rights, or UAC enabled (Windows Vista / 7). Ensure you run the FX Full Page Reader demo as administrator one time. This allows the scanner to write some calibration details and stops a delay when the scanner is started. Configuration files being written to Program Files\Common Files\gx\pr.

Right click on Full Page Reader Demo and click "Run as Administrator" or "Run As" and enter administrator details.



Scanner: Image Capture Error [clrhwh]

There are some motherboards which do not provide sufficient bandwidth for each connected USB devices. The scanners are using the full USB 2.0 bandwidth for fast operation.

A small application which can help you to solve this issue is available.

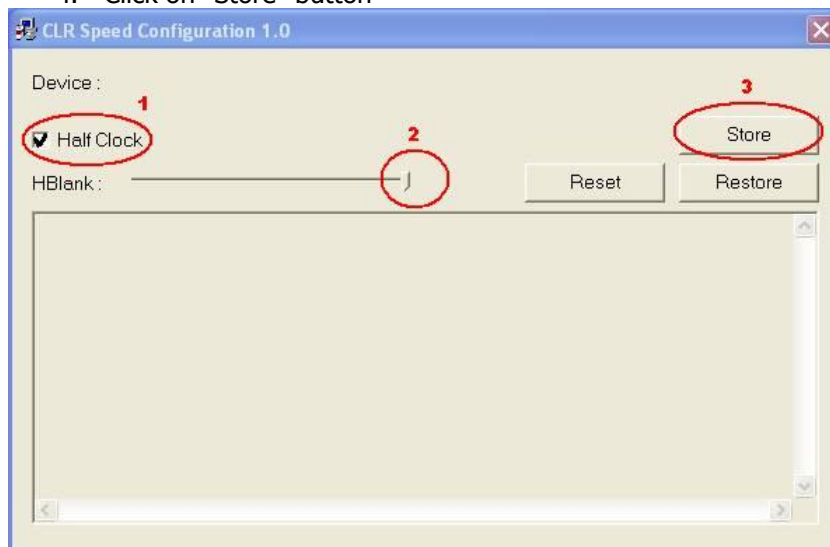
<http://www.downloads.abit-wa.com.au/products/dev/CLRSpeedConf.zip>

It will slow down the transfer rate of the Card Reader so you will not experience image capture errors.

Please follow the instructions below:

To reset the Half-Clock please:

1. Rename the ex1 file to exe
2. Tick IN the "HalfClock" checkbox
3. Pull through the slider to the right side
4. Click on "Store" button



After you have stored these settings please try to scan a document. If the device still fails please try to unplug the other USB devices (mobile HDD, pen drive, etc.).

Scanner: Hardware key does not work properly [procr] RXERROR (-92)

This error can also cause application to take a long time to scan, with an eventual error failing to extract license data for every scan.

```
***** Processing number 1 *****
Device has NO RFID reading capability.
Capture time (Infra): 666 ms
Capture time (White): 636 ms
Capture time: 1302 ms
Invalid parameter [procr] RXERROR(-92) -
OCR time: 20091 ms
Hardware key does not work properly [prbarcode]
BCR time: 2121 ms
Total processing time: 23514 ms
```

This issue is resolved in latest release of scanner drive. Please ensure version 2.1.2-02 or greater is installed.